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ABSTRACT

As part of a symposium on the provision of architectural privacy within the classroom, this paper reviews the limited research that is available and discusses the importance of viewing classroom settings as ecological units with both physical and behavioral components. Whether children prefer to use private facilities, and whether they benefit from them, depends on characteristics of the child and of the educational program and on the particular means by which privacy is provided. The relevant characteristics of the child include sex, age, opportunities for privacy at home, and personality characteristics. Characteristics of the educational program that have implications for the design of the classroom environment include the number of children, the relationships among the children required by the activity, the role of the teacher, the need for concentration, and potential distractions caused by the activity. Identifying ways to provide privacy also involves looking at degrees of privacy, types of privacy, options regarding where children are permitted to work, and the freedom to personalize an assigned place. (Author/MLF)

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# Designing for privacy in the classroom:

## An ecological perspective

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# Designing for privacy in the classroom:

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Privacy has traditionally been the domain of political scientists, lawyers, and philosophers (Altman, 1974). In recent years, however, privacy has also become a concern of educators. Much of the educator's concern with privacy has been in terms of legal invasions of privacy, usually in the context of students' records. A second aspect of privacy which has also become a concern of some educators, and is addressed in this symposium, is the provision of architectural privacy within the classroom. The purpose of this paper is to review the limited research available on this topic and to provide an ecological perspective on the provision of privacy within the elementary school classroom.

Researchers have demonstrated, in a variety of environments, that the provision of private spaces affects behavior. The effects of privacy in work environments has been the focus of several studies. Sundstrom, Burt, and Kamp (1980) recently conducted three correlational studies in which the relationships among privacy, job satisfaction, and job performance were examined. The results of all three studies indicated that privacy was correlated with satisfaction with the workspace and job satisfaction. Further, architectural privacy showed a limited, positive relationship with job performance for clerical and mechanical employees. Workplaces received higher privacy ratings when they were partitioned from other areas, had a door, and neighboring coworkers were not visible.

To increase feelings of privacy among college students, Holahan (1977) experimentally manipulated the degree of enclosure within a dormitory cafetaria. Before the manipulation was made, the cafetaria was entirely open, offering no visual privacy. There were constant visual and behavioral intrusions from food lines entering through the dining area, students seeking seats, and persons returning trays. Partitions were constructed in one quadrant of the dining area to separate students who were eating from those involved in other activities. A questionnaire was administered to a sample of students both before and after the design modification was implemented. In addition, observers used a behavioral mapping procedure to record social grouping and interaction in the cafetaria. The results of the study indicated that the partitioning of the dining area was highly successful in achieving the established objectives, both in terms of students' self-reported satisfaction and in terms of observed behavioral change. Students under the partitioned arrrangement consistently expressed more satisfaction with the dining area and demonstrated higher levels of social behavior than did students under the nonpartitioned arrangement. Further, the partitioned section was characterized by a high level of behavioral diversity, including reading, studying, and observing activity in addition to eating, whereas eating was the overwhelmingly predominant behavior in the nonpartitioned section. This is consistent with the claims made by Proshansky, Ittelson, and Rivlin (1970) who suggested that one effect of increased privacy is an increase in behavioral choices and options.

A number of educators advocate the provision of private places in elementary school classrooms (Day & Sheehan, 1974; Holt, 1974; Kohl, 1970; Mack, 1976; Proshansky & Wolfe, 1974). Despite the belief that private places within the classroom would have positive effects on young children, there is

little data available on this topic (Weinstein, 1979).

Not only is there a paucity of research regarding the effects of privacy on young children, but in the typical elementary school classroom, there are hardly any opportunities for privacy. Students may be able to regulate "output" by refusing to respond to or initiate contact with their peers or teacher, but students generally have little, if any, control over verbal and visual "input" while in school (Weinstein, 1979).

Some researchers have provided children with the opportunity to create private spaces. In one such study, children used a combination of cardboard, paper, a large metal TV stand, a corner of the room, a closet, a storage cabinet, the area underneath tables, the tops of tables, and a large packing box in order to create private spaces. After the spaces were completed, children reported feelings of relief, increased ease of concentration, and an improved ability to complete assignments (Mack, 1976).

Gramza (1970) also provided children with private spaces within the classroom. In this instance, a variety of spaces were provided in which the degree of enclosure of the spaces was manipulated. Children preferred complete rather than partial enclosure. In examining the attributes of closed space that might attract children, 32" cubes were constructed of opaque, transluscent and clear plexiglass. Children consistently preferred the opaque and transluscent boxes. Apparently, the attraction of enclosed space includes both a preference for a physical boundary, and visual limitation.

In other studies in which private spaces were provided, researchers found that children did not always choose to utilize the spaces (Campbell, 1979). Campbell (1979) reported that the attention span of the children was longer when they were able to look up and see other children playing than when visual access to other children was limited.

Whether children prefer to use private facilities, and whether they benefit from the use of such facilities, probably depends on characteristics of the child, characteristics of the educational program, and the particular means by which privacy is provided. When teachers design opportunities for privacy in the classroom, and when researchers study the effects of such opportunities, these factors must be considered.

## Characteristics of the Users

Some researchers have recognized the importance of considering characteristics of the user when studying the effects of privacy. Characteristics of children such as their sex, age, and opportunities for privacy at home have been considered in such studies. For example, Sawin, Parke, and Dimiceli (1975) conducted a study in which children's use of privacy rules and privacy markers in the regulation of family members' access to the bedroom and bathroom was examined. Privacy was operationalized as the extent to which access to space in the home environment was limited by the principal occupant of that space. One hundred twelve children, ranging in age from 2 through 17 participated in the study. Age and sex were both consistently related to the use of closed doors, rules about knocking, and access limitations. This was true in both the bedroom and the bathroom, and for parents as well as for siblings. Access to the bathroom was restricted most frequently for brothers and fathers by girls and for sisters and mothers by boys, particularly among the older children. Younger children restricted access to the bathroom regardless of the particular activity they were involved in whereas older children differentiated among activities.

Other factors which might influence children's privacy needs, use of private spaces, and the effects of using such spaces would include personality

characteristics of the child such as introversion/extraversion, impulsivity/reflexity, and distractability. In some classes, children who are easily distracted and have problems concentrating on their work and completing assignments are provided with study cubicles that limit their visual access to potentially distracting stimuli. Unfortunately, few carefully conducted empirical evaluations of the effectiveness of such spaces on children's academic performance are available. When study cubicles are provided for only one or two children within the class, these children are identified as being "different" from their peers. Thus, it is important that before recommending the use of such spaces for these children, their effectiveness is demonstrated.

## Characteristics of the Educational Program

Consideration of the educational program operating in the classroom is of utmost importance when planning opportunities for privacy or evaluating the effects of privacy.

Ecological psychologists conceptualize educational programs as consisting of a sequence of learning activities or what Gump (1969) has called "activity segments." An activity segment is an environmental unit consisting of both physical and behavioral components. The physical elements of an activity segment consist of features of the milieu such as the size of the space, the arrangement of furniture, and the objects available for use in the segment. The behavioral component of an activity segment consists of the patterns of behavior that occur every time the segment operates. The behavioral component of the segment is its "program of action" and is stable regardless of the particular individuals who inhabit the segment on a particular occasion. A critical feature of activity segments is that the physical and behavioral components of the segments have a similarity of structure or shape. This

relationship is an important characteristic of activity segments and has been termed synomorphy by Barker (1968). Examples of common segments that occur in elementary schools are the morning flag salute, reading circles, individualized seatwork, and the creation of works of art. Each of these segments calls for different kinds of behaviors, and different physical arrangements.

In an examination of designing for privacy in open space schools, Pipal (1980) argued:

> The diverse activities taking place in the modern class, need to be classified in some behavioral terms in order to determine the amount of enclosure they require when planning for adequate privacy. Two such terms suggest themselves: the degree of "concentration" needed to perform the task, and the amount of "commotion" the task creates. Programmers should measure activities according to these two "dimensions" in addition to other needs, and calculate the needed privacy from there. Both those that require a high amount of concentration and those that cause a great deal of commotion, require a high level of privacy. Little privacy is needed for those that require little concentration or make little commotion. Of course, those that make little commotion are very often, though not always, the activities that require much concentration.

In essence, Pipal is arguing that when designing for privacy, attention must be paid to the extent to which both input (i.e., the need for concentration) and output (i.e., potential distractions caused by the activity) must be regulated. Other aspects of the educational program that have implications for the design of the classroom environment include factors such as: the number of children who will be engaged in the activity, the relationships among the children required by the activity, the role of the teacher, and the manner in which the children's work will be evaluated.

Privacy can involve differentially sized and composed social units. Person-person, person-group, group-person, or group-group units can be in-

volved (Altman, 1974; Westin, 1970). Activities that require children to work alone should have physical arrangements that seclude children from one another. Activities that require groups of children to work together should have physical arrangements that seclude groups of children from one another but encourage interaction among children within each group (Johnson, 1979).

Each of the aspects of the educational program discussed above must be considered for each activity segment that occurs in the classroom during the school day. In open plan school buildings where walls are not present between teaching areas, the control of output to and input from adjacent teaching spaces must also be considered. Teachers must be careful that the messages communicated by the physical arrangement are congruent with the teacher's verbal messages regarding the behavior expected to occur in the setting (Howie & Winkleman, 1977). When planning for privacy, just like when planning for any other goal, care must be taken to insure that the educational program and the physical milieu are synomorphic.

## Various Ways to Provide Privacy

Kira (1970) has written on privacy in relation to the use of bathroom facilities. According to Kira (1970), the state or condition of privacy is relative and there are a number of degrees of privacy which are attainable or which may be desired. In reference to the bathroom, it is possible to establish three major categories: (1) privacy of being heard but not seen, (2) privacy of not being seen or heard, and (3) privacy of not being seen, heard, or sensed (i.e., other people are not even aware of whereabouts or intended behavior).

Pipal (1980) similarly distinguished among various degrees of privacy (none, partial, complete) and types of privacy (acoustical, visual, psy-

chological) when discussing how to design private spaces in open plan schools.

The provision of options or choices regarding where children are permitted to work, and the freedrom to personalize an assigned place are other forms of privacy. Privacy can further be provided by assigning children spaces that they do not have to share with other children. Spaces that are not shared would be more private than those which are shared since personalization of the space and use of the space to store one's personal belongings could occur.

Altman (1974) has emphasized the importance of control, the ability to open and close oneself to others, and the freedom of choice and options regarding accessibility to others in his conceptualization of privacy. It is probably important for teachers to provide children with opportunities in which the children are responsible for the regulation of output and input as well as providing opportunities in which the output and input are optimally regulated for the children by the teacher. Providing opportunities for children to experience various kinds of privacy in the classroom and opportunities for them to be in control, might help children develop a mature understanding of the concept of privacy.

In some classrooms, private spaces are provided for only a few students, or only a few spaces are provided which must be shared by students. The meanings attached to these spaces can vary depending on the rules that govern who uses the spaces and when they are used. In some classrooms, private spaces are "privileged" spaces. They are not necessarily linked directly to a particular educational program, but instead to student behavior that deserves positive recognition. For example, in one classroom, a teacher set up a partitioned area large enough for several children to use simultaneously. During seatwork activities, children who had been cited by the teacher as having

worked appropriately during the previous week had the choice of working in either their regular seats or in the private space.

In other classrooms, private spaces are places where children are sent as a "punishment" for inappropriate behavior. For instance, many classrooms that operate according to the techniques of behavior modification have a "time-out" area. Children are sent to this area either to work, or simply to sit, for a specified length of time whenever they behave inappropriately. These spaces have the potential of being used for different purposes by children in classrooms where opportunities for privacy are not available to children. Wolfe and her associates report for instance that children in psychiatric institutions claimed that they often acted out in order to be placed in the seclusion room to "get away from it all" (Wolfe & Rivlin, 1973; Wolfe, Rivlin, & Beyda, 1972).

## Designing for Privacy

When designing educational programs and the physical environment within which they operate, the first task faced by the teacher is to determine the goal(s) to be achieved in the setting. This is clearly a crucial step, yet one that many teachers probably do not do.

Johnson (1974) has argued that privacy is a set of behavioral strategies designed to attain secondary control over outcomes. Privacy, as secondary control, is not an end in itself, but facilitates the attainment of other outcomes or ends. The successful enactment of privacy behavior may or may not be satisfying depending on whether or not more generic goals are attained.

Possible goals that teachers might want to achieve through the provision of private spaces include: an increase in children's attention to their assignments, an increase in the amount of work children are able to complete,

improved student achievement, a increased willingness on the part of the child to engage in behaviors that they might find awkward or embarrassing to engage in within the presence of their teacher or peers, an opportunity for two or more children to develop a social relationship (e.g., tutors and tutees in a peer tutoring relationship), an occassion to learn rules regarding the right to privacy that are part of adult society, and an opportunity for children to learn techniques of personal and social control. Depending on the particular goal the teacher is trying to achieve, the kind of facility that should be provided would differ.

After the goal is clearly established, alternative ways to achieve the goal can be compared. Choosing an alternative and acting on it would be the next stage of the design process. Many teachers might see this as the final step, however one last and crucial phase remains -- an evaluation phase. It is important that after an arrangement is decided on and implemented, to note the consequences of the choice. Does the arrangement that was established seem to be accomplishing the goal? Is there any way that the facility can be improved?

Clearly, at this point relatively little is known regarding the effects of providing opportunities for privacy in the classroom. This paper has discussed some of the limited research that is available both in the educational literature as well as in the larger body of social science research. Also discussed in this paper was the importance of viewing classroom settings as an ecological unit with both physical and behavior components. In future work, researchers can analyze the types of educational programs being implemented by classroom teachers and then help teachers modify classroom environments so that various degrees and types of privacy, matched to the educational program, are provided. Most importantly, when oppor-

tunities for privacy are provided in elementary school classrooms, whether children utilize the spaces, and the effects of privacy upon children's behavior must be assessed.

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